

REMARKS:

In the foregoing amendments, claims 2, 3, 11 and 12 were rewritten as independent claims. In addition, Claim 3 was further amended by adding the phrase "for a period of time from the beginning of steps (B) and (C)" at the end thereof. This limitation can be found in the present specification disclosure in Table 2 on page 24 and elsewhere. For example, in Table 2, the concentration of dioxins of example 2 decreases for at least 28 days after charging was begun (i.e. the beginning of steps (B) and (C)). Claims 1, 5, 9, 10, 13, and 14 were canceled. Accordingly, claims 2-4, 6-8, 11, 12, 15, and 16 are in the application for consideration at this time.

In two separate rejections, claims 1-8 and claims 9 and 11 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent No. 6,755,906 of Jorget *et al.* (Jorget). These rejections are set forth on pages 2 and 3 of the Official action. Claims 9-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. patent No. 3,618,916 of Giorgi in view of Jorget. This rejection is set forth from the bottom of page 3 through the top of page 5 of the Official action. Applicant respectfully submits that the inventions set forth in claims 2-4, 6-8, 11, 12, 15, and 16 are patently distinguishable from the teachings of Jorget alone or further combined with the teachings of Giorgi within the meaning of 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a) for at least the following reasons.

Present claim 2 defines, *inter alia*, that at least part of the collected dust is charged into a place having a temperature of at least 800 °C, and the remainder of the dust is charged into a place having a temperature below 800 °C. According to the invention defined in claim 2, when it is difficult to charge all of the collected dust into a place having a temperature of at least 800 °C, the amount of collected dust to be treated can be increased by charging part of the collected dust into a place having a temperature below 800 °C. This is discussed on page 6, lines 1-8, and elsewhere in applicant's specification disclosure.

Present claim 3 includes the limitations discussed above for claim 2 and further defines, *inter alia*, that the concentration of dioxins in the exhaust gas decreases with the lapse of time. The teachings of Jorget and/or Giorgi do not contemplate or suggest the inventions set forth in claims 2 and 3 for at least the following reasons. For example and in contrast to applicant's claim 3, in reference example 1 of Jorget, the concentration of dioxins in the exhaust gas increases with the lapse of time.

Jorget proposes that a coarse fraction poor in harmful elements received by the first filter 8 can be reintroduced into the clinker manufacturing circuit via recirculating means 6, and also proposes that a fine fraction rich in harmful elements received by the second filter 12 is eliminated, or is upgraded separately (see Fig.1; column 2, lines 29-35; and column 5, lines 15-21, and

35-42). Giorgi proposes that the material (i.e. dust) exiting from the multistage filtration unit 30 is conveyed through a tubular conveying member 50 into the conduit 16 by the pump 48 (see Fig.1, and column 2, line 57, to column 3, line 5). The arrangements and structures in present claims 2-4, 6-8, 11, 12, 15, and 16 are different from those proposed by Jorget and Giorgi and cannot be contemplated or suggested therefrom.

In the rejection under 35 U.S.C. §102, the Official action stated that Jorget teaches a step of charging a remainder of the dust (2) into a place having a temperature below 800°C inside the cement manufacturing equipment. However and as explained above, the teachings of Jorget propose that the remainder of the dust (2) is eliminated, or is upgraded separately (see Fig.1; column 2, lines 33-35; and column 5, lines 35-42). For this reason, applicant respectfully submits that the teachings of Jorget cannot disclose or suggest charging a remainder of the dust (2) into a place inside the cement manufacturing equipment to one of ordinary skill in the art, as required in present claims 2 and 3.

In addition, the Official action stated that Jorget teaches dust conveying means (13) for charging at least part of the remainder of the dust collected by the dust collecting equipment into a place on a cement raw materials inlet side at a distance from the parts inside the suspension preheater capable of reaching a temperature of at least 800°C. However, Jorget does not disclose

the art of discharging the remainder of the dust into the suspension preheater (i.e. cyclone exchanger 15 in Fig.1), as explained above. Furthermore, the teachings of Jorget discuss the fine grain size fraction 2 at column 5, lines 34-42. Here, Jorget proposes that the fine grain size fraction 2 can be later evacuated for disposal or upgrading. This discussion in Jorget does not and cannot suggest that a remainder of the dust from step (B), as required in present claims 2 and 3, is charged into a place having a temperature below 800°C inside the cement manufacturing equipment. In addition, applicant cannot find where the teachings of Jorget disclose or suggest the limitations of claims 3 and 4, concerning, *inter alia*, the concentration of chlorinated organic compounds in the exhaust gas decreases with the lapse of time. For these reasons, applicant respectfully submits that the teachings of Jorget cannot disclose or suggest charging a remainder of the dust (2) into a place inside the cement manufacturing equipment to one of ordinary skill in the art, as required in present claims 2 and 3, or the aforesaid limitations in claims 3 and 4. Accordingly, applicant respectfully submits that claims 2-4 and the claims that depend thereon are patently distinguished bowl from the teachings of Jorget.

In the rejection under 35 U.S.C. §103, the Official action stated that it would have been obvious to one of ordinary skill in the art at the time of the invention to charge a part of the dust collected by the dust collecting

equipment (30) into the rotary kiln (10) in order to fully remove the chlorinated organic compounds from the system. However, neither Giorgi nor Jorget disclose the art of charging at least part of the collected dust into a place having a temperature of at least 800 °C, and charging the remainder of the dust into a place having a temperature below 800 °C, as required on all the pending claims. See, for example, the teachings of Giorgi at column 2, line 73, to column 3, line 5. Here, the teachings of Giorgi propose that the output of cyclone 2 exits to a pump 48 to which is also fed the material exiting from the multistage filtration unit 30. The pump 48 pneumatically conveys the pulverized material, so accumulated, through a tubular conveying member 50 into the conduit 16. The tubular conveyor 50 passes through the center of the vertical gas conduit 20 a substantial distance and feeds the material conveyed therein directly into the air stream in the conduit 16. This arrangement is proposed in Fig. 2 of Giorgi. Such an arrangement, as proposed in Giorgi, does not disclose or suggest charging at least a part of the dust collected into at least one place selected from the suspension preheater reaching a temperature of at least 800°C, the pre-calciner, and the rotary kiln, also as required in present claims 11 and 12 and the claims that depend thereon. For similar reasons, applicant cannot find where the teaching of Giorgi suggest charging a remainder part of the dust collected by the dust collecting means into a place on a cement raw material inlet side at a distance from the parts inside the

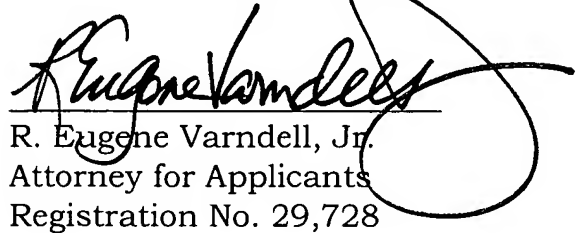
suspension preheater capable of reaching a temperature of at least 800 °C, also as required in claims 11 and 12 and the claims that depend thereon. In fact, the teachings of Giorgi use pump 48 to feed a single location within conduit 16, and therefore, cannot suggest supplying the collected dust to at least two separate locations, as defined in claims 2, 3, 11, and 12 and the claims that depend thereon.

For the foregoing reasons, applicant respectfully submits that the inventions set forth in claims 2-4, 6-8, 11, 12, 15, and 16 are patently distinguishable from the teachings of Jorget alone or further combined combined the teachings of Giorgi within the meaning of 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a). Therefore, applicant respectfully requests that the examiner reconsider and withdraw the rejections of these claims, and formally allow claims 2-4, 6-8, 11, 12, 15, and 16.

The foregoing is believed to be a complete and proper response to the Official action mailed July 1, 2005. While it is believed that all the claims in this application are in condition for allowance, should the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which become due, may be charged to our deposit account No. 50-1147.

Respectfully submitted,
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